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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,012	12/04/2001	Makoto Kitamura	018976-206	7969

7590 07/13/2005

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EXAMINER

NGUYEN, THUKHANH T

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,012

Applicant(s)

KITAMURA ET AL.

Examiner

Thu Khanh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8-16 and 22 is/are rejected.
- 7) ☐ Claim(s) 5, 7, 20-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6, 10, 12-16 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Tokita (6,881,048).

Tokita teaches an apparatus for compressing powder material, comprising a mold conveyor system (22) for transferring a mold support plate (224) having a die (a) and a lower punch units (234) through different stages (12, 14, 16, 18, 20), a pressing driving mechanism (187) having upper punch (186) for driving the punches together to press the material, a connecting mechanism (188, 189) connecting with the lower punch units (183) to the pressing driving mechanism when the mold is transferred to the pressing stage (Fig. 12), a unit holding mechanism (223) for holding the punch units while the lower punch units are transferred to the next stages.

Tokita's apparatus further comprises a charge driving mechanism (154) a connecting mechanism (143) and a unit holding mechanism (223) for filling the powder material into the mold cavity (14, Figs. 9-11).

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The apparatus further discloses a take out unit (Fig. 14) having a take out mechanism (20), a connecting mechanism (201) for connecting the take out unit and the mold, a unit holding mechanism (204, 223) for holding the punch units while the mold is transferred to the next stage.

In regard to claim 22, wherein the upper punch unit (186) is not transferable and is provided at the pressing station (18).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokita ('048) in view of Nakagawa et al (5,647,410).

Tokita discloses a powder pressing apparatus as described above, but fail to disclose the punches are driven by a driving shaft, including a strut, a ball screw, a servomotor and a timing belt.

Nakagawa et al disclose a powder-molding machine, comprising an upper punch (13) and a lower punch (14) being driven by a ball-bearing nut (16, 18), ball bearing screws (12, 15), a servomotor (17, 19) and a timing belt (22, 25).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Tokita by providing a punch-driving means including a ball bearing nut, ball bearing screws, a servomotor and a timing belt as taught by Nakagawa et al,

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because this driving means with the servomotor and timing belt would enable accurate control the position of the punches toward and away from each other.

5. Claims 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokita ('048) in view of Shapiro (3,677,673).

Tokita fails to disclose that the mold transfer mechanism includes a rotary table and a cleaning stage for removing powder adhering to the die and to the punch units.

Shapiro discloses a rotary press for compressing powder material, comprising a rotary table (36), a plurality of dies (52) with a plurality of punches, a feed means (50), vacuum means (60) circumferentially located on the upper surface of the rotary table to remove excess powdered material from the mold cavities (col. 4, lines 47-58).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Tokita by providing a rotary transfer table and a cleaning means as taught by Shapiro, because many stations could be disposed on a rotary turntable, so less space is required for the apparatus, while the cleaning means would remove excess material from the dies and the rotary table to prevent contamination during the molding process.

Allowable Subject Matter

6. Claims 5, 7, 20-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or suggest an apparatus comprising a connecting mechanism comprising clamp bodies fixed to each of the pressing driving mechanism, the charging driving mechanism, and the taking out driving mechanism, sliding claws movably supported on each of the clamp bodies; and an advancing receding driving mechanism which advances or recedes each of the sliding claws between a clamping position and an unclamping position; a pressing driving mechanism with a connecting mechanism for connecting and releasing the punch units at the pressing stage; a charging driving mechanism with a connecting mechanism for connecting and releasing the punch units at the charging stage, and a taking-out driving mechanism; wherein the charging driving mechanism and the taking-out driving mechanism each including driving shafts connected to the first and second lower punches and actuators for independently driving the shafts.

Response to Arguments

8. Applicant's arguments with respect to claims 1-16 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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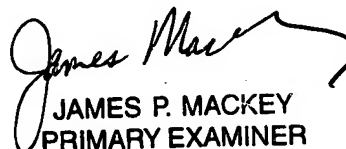
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Khanh T. Nguyen whose telephone number is 571-272-1136. The examiner can normally be reached on Monday- Friday, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN


JAMES P. MACKEY
PRIMARY EXAMINER

7/11/05